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| APPLICATION NO.                                                                                    | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO. |
|----------------------------------------------------------------------------------------------------|-------------|----------------------|--------------------------------|------------------|
| 09/982,234                                                                                         | 10/19/2001  | Daigo Kaneko         | 381NP/50449                    | 7613             |
| 7590                                                                                               | 10/07/2004  |                      | EXAMINER<br>FLETCHER, MARLON T |                  |
| CROWELL & MORING LLP<br>INTELLECTUAL PROPERTY GROUP<br>P.O. BOX 14300<br>WASHINGTON, DC 20044-4300 |             |                      | ART UNIT<br>2837               | PAPER NUMBER     |

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/982,234

**Applicant(s)**

KANEKO ET AL.

**Examiner**

Marlon T Fletcher

**Art Unit**

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-13 and 15-22 is/are rejected.
- 7) ☒ Claim(s) 3 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4-13, and 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto et al. (6,396,229) in view of Sugiura et al. (4,922,175) and Lee (6,283,252).

As recited in claims 1, 8, 11, 17, and 18, Sakamoto et al. disclose a method of controlling and controller driven by a synchronous motor comprising: a rotor position estimator which estimates a magnetic pole position of a rotor (column 6, lines 51-54) of said synchronous motor based on electrical quantities in relation to electric power supplied to the synchronous motor as discussed in column 16, lines 11-61.

As recited in claims 2 and 11, Sakamoto et al. disclose a controller, further comprising motor speed control (62) which controls the speed of said synchronous motor based on the position command as discussed in column 18, line 55 through column 19, line 13, wherein speed control is provided. Sakamoto et al. disclose a

controller, further comprising a motor speed command generator which controls the speed of said synchronous motor based on the position command as discussed in the abstract and column 16, lines 49-61

As recited in claims 4, 9, and 12, Sakamoto et al. disclose a controller, further comprising position information correcting means (7) which corrects the position of said the rotor which in turn controls the load based absolute position information of the load as discussed column 20, lines 5-32.

Although it may be inherent that the motor would control some load, Sakamoto et al. do not disclose controlling a mobile body via a mobile body position estimator.

However, as recited in claim 1, Sugiura et al. disclose a mobile body position estimator which estimates the position of a mobile body based on the magnetic pole position estimated by said rotor position estimator as discussed in column 4, lines 2-13; and column 5, lines 48-61. As recited in claims 5-7, 9, 10, 12, 13, 15, and 16, Sugiura et al. disclose a method of controlling a mobile body, comprising the further step of: correcting the position of said mobile body estimated, based on absolute position information of said mobile body estimated by said mobile body position estimator based on absolute position information of said mobile body as discussed in column 6, lines 41-51; wherein the mobile body position corresponds directly to the rotor position column 5, lines 53-61.

With respect to claims 19-22, Lee discloses a mobile body position estimator which estimates the position of a mobile body based on the magnetic pole position estimated by said rotor position estimator as discussed in the abstract; and column 1,

lines 6-14 and correcting the position of said mobile body estimated (column 1, lines 6-14), wherein Lee discloses that the mobile body is an elevator, wherein position is generated about the mobile body (abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of Sugiura et al. and Lee with Sakamoto et al., because Sugiura et al. and Lee provide a control system, wherein the load being controlled is a mobile body (elevator), wherein it could be understood that Sakamoto et al. provide subject matter for controlling a load, wherein the combination provides teaching which would provide one skilled in the art to estimate the mobile body position driven by a synchronous motor (Sakamoto et al) based on the magnetic pole position.

#### ***Allowable Subject Matter***

4. Claims 3 and 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in the Office action dated 09/04/2002 and to include all of the limitations of the base claim and any intervening claims.


The prior art fails to provide the system claimed, wherein the system further provides a display of the mobile body position.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306.



Marlon T Fletcher  
Primary Examiner  
Art Unit 2837

MTF  
October 1, 2004